



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,792	06/23/2003	Daniel C. Troyer	4264-030858	8337

28289 7590 11/04/2005

THE WEBB LAW FIRM, P.C.  
700 KOPPERS BUILDING  
436 SEVENTH AVENUE  
PITTSBURGH, PA 15219

EXAMINER

PETERSON, KENNETH E

ART UNIT

PAPER NUMBER

3724

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

<b>Office Action Summary</b>	Application No. 10/601,792	Applicant(s) TROYER, DANIEL G.
	Examiner Kenneth E. Peterson	Art Unit 3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9, 10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 10 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3724

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2,7,9,10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al.'822, who shows in figure 6a a band saw with most of the recited limitations including a valley (all space between cutting tips) having a cut-out (11). In regards to claim 7, it is noted that the cutout can be bisected at any angle, and therefor any cutout would read on this limitation.

Yoshida's cutout (11) is for the purpose of chip removal, but the cutout does not extend all o the way thru the saw blade. Examiner notes that it is well known for chip-removal cutouts to extend all of the way thru the saw blade. An example of such is the patent to Potomak (10, lines 35-39, column 2). It would have been obvious to one of ordinary skill in the art to have modified Yoshida's cutout by making it go all of the way thru the blade, as is well known and taught by Potomak, since this is an art-recognized equivalent known for the same purpose. See MPEP 2144.06.

In regards to claim 9, the size of the valley between the teeth and the corresponding relative size of the cutout are known results-effective variables. When cutting soft materials, such as pine or soft plastics, a designer would choose a large tooth pitch (large valley) such that there would be a large tooth penetration per cycle. When cutting a hard material, such as steel or hard plastics, a designer would choose a

Art Unit: 3724

much smaller tooth pitch, since one would like to avoid a large tooth penetration that would cause binding or breakage. Given this knowledge that valley size and corresponding cutout size can vary widely, it would have been obvious to have made the valley and cutout be small (e.g. the cutout be the same width as the blade thickness) in order to cut hard materials.

In regards to claim 12, Yoshida would have, after modification, an upwardly directed lip in the same way that Potomak has an upwardly directed lip.

3. Claims 1-7,9,10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biro '963, who shows in figure 1 a band saw with most of the recited limitations including valleys (all spaces between cutting tips) with curvilinear ski-jump slopes and parallel teeth edges.

Biro lacks a cutout in the bottom of the valley. Examiner notes that it is well known to have a cutout in the blade valley, for the purpose of diverting cut material. An example of this is the patent to Balke (2, lines 41-50, column 2). It would have been obvious to one of ordinary skill in the art to added a cutout in Biro's valley, as is well known and taught by Balke, in order to divert cut material and thus avoid jamming. Balke's cutout is approximately the same thickness as the blade thickness, and thus it would have been obvious to one of ordinary skill in the art to have made the cutout have the same width as the blade thickness on Biro, for lack of any other suggestion.

In regards to claim 12, Biro would have, after modification, an upwardly directed lip in the same way that Balke has an upwardly directed lip.

4. Applicant's arguments have been fully considered but they are not persuasive.

Applicant has overcome the rejections under 35 USC 102.

Applicant argues that Yoshida's cutouts teach away from extending the cutout all the way thru the thickness of the blade. However, a careful reading of Yoshida finds no such "teaching away". Yoshida never suggests that his cutouts are superior or functionally different to cutouts that extend all the way thru the thickness of the blade. Remember the old adage "teaching a way is not teaching away".

Applicant argues that Potomak is non-analogous art. This argument is not found to be convincing. It is well known that tooth configurations are equally applicable to both circular saws and band saws. This is because the teeth, at the point of contact, are moving roughly in the same direction regardless of whether they are on a circular saw or bandsaw. The sawing field is littered with patents that say their teeth could be employed on either bandsaws or circular saws.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson whose telephone number is 571-272-4512. The examiner can normally be reached on Mon-Thur, 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kp  
November 3, 2005



KENNETH E. PETERSON  
PRIMARY EXAMINER